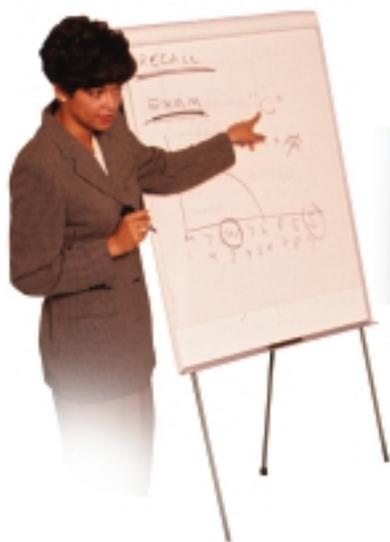


# Model State Compliance Assurance Program Guide for

# Auto Recycling Facilities



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# Model State Compliance Assurance Program Guide for **Auto Recycling Facilities**

*This guide is intended to assist states in developing a compliance assurance program for auto recycling facilities.*

## **Environmental Issues**

**E**ach year, approximately 8.2 million cars and 5.1 million trucks are retired in the United States<sup>1</sup>.

Most of these vehicles end up in auto recycling facilities. The primary environmental concern at auto recycling facilities is the potential for ground- and surface-water contamination due to mishandling of vehicular fluids, including gasoline, diesel fuel, oil, transmission fluid, power steering and brake fluids, gear oil, and mineral spirits. These facilities also generate a number of other wastes, including: mercury from switches and lamps; lead from lead-acid batteries, wheel weights, and battery cable ends; CFCs and other refrigerants from air-conditioning units; sodium azide from air bags; asbestos from brake shoes and clutches; and waste tires.

The U.S. Census Bureau estimates that there are over 7,000 auto recycling facilities in the U.S. Once the old cars are dismantled, these facilities sell some of the components to professional auto repair shops and to those of us who like to fix our own cars. Other components, such as antifreeze and lubricants, may be recycled, stored indefinitely on site, or improperly disposed. Poor management of waste streams by owners and opera-

tors of auto recycling facilities can have serious impacts on environmental quality.

Several federal environmental statutes (e.g., the Resource Conservation and Recovery Act (RCRA), the Clean Water Act (CWA), and the Clean Air Act (CAA)), as well as state and local requirements impact this industry. Many facilities (particularly the small operations) may not understand fully which of the requirements apply to them or how they should manage their wastes to minimize releases to the environment. While information on national compliance rates is not available for auto recycling facilities at this time, anecdotal information from state compliance assurance programs indicate poor environmental compliance at auto recycling facilities (see the case studies at the end of this guide).

The Environmental Protection Agency (EPA) and the states need to reach out to this industry. Many compliance assurance tools are available, but there has not been a guide to help the states establish an effective compliance assurance program. This guide presents the components of a program that integrates all facets of compliance assurance: compliance assistance, compliance incentives, compliance monitoring, and enforcement.

In developing a compliance assurance program for auto recyclers, it is important

<sup>1</sup> Source: *Management of End-of Life Vehicles (ELVs) in the US*, Center for Sustainable Systems, University of Michigan, Jeff Staudinger and Gregory Keoleian. Approximately 93% of the trucks are considered "light," with 75% of those being used for personal use.



to differentiate between those recyclers who are either in compliance or are trying to comply with environmental regulations, and those who make little or no effort to comply. One of the

biggest challenges in developing a compliance assurance program is identifying the noncompliant recyclers. These facili-

ties typically don't apply for the proper EPA permits (e.g., storm water permits), may not have the proper business licences, and are not on EPA's or states' "radar screens," making it difficult to identify and evaluate them. However, if compliance assistance or enforcement efforts are focused only on the easily identified facilities, it may encourage facilities to stop working with EPA and states, further eroding environmental performance in this sector.

## Identify the Universe of Auto Recycling Facilities

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The first component of an effective compliance assurance program is knowing the number and locations of the auto recycling facilities in your state.

Identifying the entire universe of auto recycling facilities can be challenging because this sector comprises many small "mom and pop" shops and "hobbyists." As mentioned above, the U.S. Census Bureau estimates the number of auto recycling facilities to be over 7,000; however, other sources list the number of facilities as ranging from 6,000 to over 12,000<sup>2</sup>. This wide range reflects the fact that the "mom and pop" and hobbyist shops are hard to locate and classify. There is no comprehensive list of auto recycling facilities in the United States.

You will probably need to use several resources to help locate the auto recycling facilities in your state or region. These include local trade associations, local government agencies, the phone book, word-of-mouth (e.g., identify small facilities through discussions with large

auto recyclers), visual identification by driving by auto recycling facilities, and aerial photography. Trade associations can be a good place to identify the larger auto recycling facilities. You can supplement this list with information from local government agencies and the phone book. However, to identify the small "mom and pop" facilities and hobbyists, you may need to turn to visual identification, aerial photography, or word-of-mouth. We encourage you to use a combination of these tools to identify the auto recycling facility universe in your state, because no single tool likely will generate a comprehensive list.

### Local Trade Associations

People involved or interested in a particular trade often join a trade association. The national trade association for auto recycling facilities is the Automotive Recyclers Association (ARA, at [www.autorecyc.org](http://www.autorecyc.org)). This trade association has local chapters that are active in

many states; these chapters can be accessed through ARA's Internet site (click on "Useful Links" or go to [www.autorecyc.org/docs/links/relatedlinks.htm](http://www.autorecyc.org/docs/links/relatedlinks.htm)).

The local auto recycling trade association chapters should be able to provide the name, address, and contact person for their members, and identify the type of work that their members do. However, only a subset of the auto recycling facilities in an area may be identified. Small facilities may not have the resources or realize the value of being a member of a trade association. ARA has approximately 1,000 members (an estimated 13 percent of the industry), and their affiliate chapters have approximately 3,000 members. The national and local chapters account for approximately 50 percent of the industry, most likely the larger, more sophisticated, better performing auto recycling facilities. In addition, ARA requires members to comply with all government regulations and submit documentation of compliance with storm water requirements. Using only trade associations to identify facilities may underestimate the number of auto recycling facilities and bias your results with respect to the performance of those facilities. Nevertheless, a local trade association is a good place to start in locating auto recycling facilities.

The local auto recycling trade association most likely has a more complete list of all auto recyclers in the state. While the trade association may be reluctant to provide this list to a regulatory agency, especially if there are potential enforcement ramifications, several states found that trade associations are willing to provide

the lists for activities solely focused on compliance assistance. For example, Kansas state personnel conducted compliance assistance inspections at auto recyclers with the provision that subsequent compliance assistance would be provided by Kansas State University. Because the focus of the inspections was compliance assistance, the local trade association was willing to provide the complete list of auto recyclers.

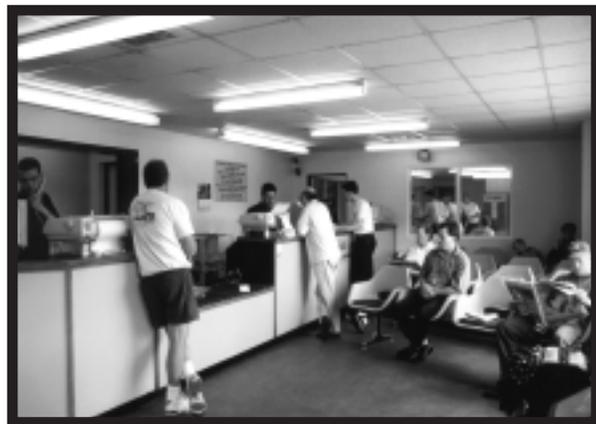
## **Local Motor Vehicle Agencies**

In many states, the local motor vehicle agencies (e.g., the Bureau of Motor Vehicles, the local Department of Transportation) require auto recycling facilities to register and obtain a license. For example, both Ohio and New York maintain extensive lists of auto recyclers at their local Departments of Motor Vehicles; these lists were used to identify the universe of auto recyclers. Local motor vehicle agencies also may have additional information to identify recyclers.

For example, Florida's local Departments of Transportation provided aerial photography that was used to identify recyclers.

## **Other Local Government Agencies**

Local government agencies may have information about auto recycling facilities resulting from issuing a business license, knowing the service area for either fire or police protection, or issuing some type of





permit. You should work with local government agencies to both identify recyclers and foster cooperation between the state and local agencies. Coordinating with local government agencies will pay dividends when implementing your program. For example, Florida state personnel coordinated with Orange County government agencies to both identify recyclers and implement a compliance assurance program. Local government agencies that may have information include:

- All states require some form of licensing for business to operate. You can contact a local business licensing department to determine the level of information they can provide. However, your first step should be to clarify the definitions your state uses for various business sectors. Be aware that some states have broad classifications (e.g., “salvage yards”) that include but are not limited to auto recycling facilities. In this case, using data for all “salvage yards” would overestimate your population and bias your results.
- Local fire and police departments may have information on auto recycling facilities, including small “mom and pop” facilities and hobbyists, through interactions with these facilities.
- Local planning and economic development agencies or watershed groups may have information on the auto recycling facilities within their service area.
- Some auto recycling facilities have obtained storm water permits; the local water permitting agency will be able to

help identify these facilities. However, the facilities that are most likely of concern (i.e., noncompliant facilities) may not have submitted a permit application and, therefore, would not be included in this data source.

## **The Telephone Book**

The local phone book is a reliable source for locating businesses. CD-ROMs that contain Yellow Page listings are available and offer flexible search options. You can search under categories such as “Automobile Salvage,” “Automobile Parts and Supplies—Used and Rebuilt,” “Junkyards,” or “Junk Dealers.” However, not all auto salvage yards, especially “mom and pop” yards or hobbyists, advertise in the telephone book. Therefore, using the phone book alone will likely provide only a listing of the large yards.

## **Word-of-Mouth**

Talking to known auto recycling facilities is an effective way to identify additional facilities, especially the smaller facilities. The larger facilities usually know about the smaller facilities in a specific area. Several states have successfully convened meetings of trade association members to help identify the smaller facilities in specific localities. By clarifying up front that the purpose of the effort is to conduct a compliance assurance program, you can usually get the required information. Several states found that the larger facilities are interested in seeing the rest of the industry comply with regulations, so the large facilities are willing to support an industry-wide compliance assurance effort.

## **Automobile Auction Houses**

When cars are totaled, they are sent to automobile auctions. ARA estimates that there are approximately 250 automobile auction houses in the country. These auction houses maintain lists of who purchases automobiles at the auctions, which may help identify additional auto recycling facilities.

## **Visual Identification by Drive-By**

One approach to identifying “mom and pop” auto recycling facilities and hobbyists is to drive by and visually identify them. While this approach can provide accurate information, it is not practical on a large scale such as a state or even a large county. However, if you have identified a specific area that is known to have a concentration of auto recycling facilities, this approach can be very effective.

## **Aerial Photography /Flyovers**

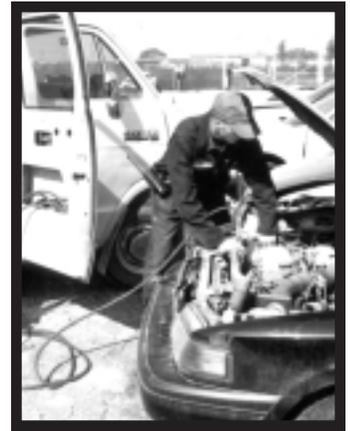
You can locate auto recycling facilities through aerial photography. Aerial photography provides a baseline record of an area. Using the photographs, you can locate the auto recycling facilities and assess improvements in the operations of auto recycling facilities as a result of compliance assurance activities. Aerial photographs are available from several sources, such as the state Department of Transportation, local planning and economic development agencies, watershed or water management agencies, and the Corps of Engineers. You can also obtain satellite photographs from geological surveys, though these may not be of sufficient quality to identify auto recyclers. Geographic Information Systems (GIS)

software packages can be useful tools for analyzing aerial photographs and identifying specific locations of recyclers.

You can use flyovers to find auto recycling facilities that may not be found by “driving by,” and confirm the location of those facilities through site visits. Renting an airplane for a flyover or hiring someone to take aerial photographs can be expensive; however, you have to compare the costs of this approach to the benefits gained. For example, you may collect more information in a shorter period of time from a flyover than by conducting a drive-by to locate all of the auto recycling facilities in an area. States such as Florida and Wisconsin have successfully used aerial photography and flyovers. In Florida, a local flying group volunteered to do the flyovers to earn additional flight time; the state paid for the film and development. Using this approach, the state significantly reduced the costs of this effort.

## **Data Collection Companies and Marketing Lists**

Several companies collect financial data and develop marketing lists to use in direct marketing and financial activities. The most common are Dun and Bradstreet and Standard and Poors’ Compustat. EPA has a contract with Dun and Bradstreet that allows EPA personnel to query this database without any fee. To access this database, contact Michelle Torreano (202-566-2141) in EPA’s Office of Environmental Information, Data Acquisition Branch. These sources are useful for sectors containing primarily large businesses. Unfortunately, these sources usually do not include smaller



companies and would not likely provide any information in addition to that

obtained through the trade associations and telephone books.

## Developing a Baseline of Performance

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### Why Develop a Baseline?

After identifying the auto recycling facilities in your area, the next step is to

develop a baseline of environmental performance. This step is often overlooked when developing compliance assurance programs, but having such a baseline is important to better define the problem, target the compliance assistance and enforcement activities, and measure the success of your program.



and measure the success of your program.

### Better Define the Problem

Ideally, you would develop your baseline using existing empirical data on the environmental performance at auto recyclers. However, in many cases, only anecdotal information is available. These facilities can have a wide range of environmental performance issues, including mercury switch handling, fluids management, battery handling, and storm water control. Some of these issues may be present at most of the auto recycling facilities in your area, while others may be present at only one or two facilities. Developing a valid baseline helps you better identify and understand your universe of facilities,

the most prevalent environmental problems at those facilities, and their compliance with environmental requirements. This allows you to develop more applicable and effective compliance assurance strategies.

### Target Compliance Assurance Activities

By knowing what and where the problems are, you can better develop a strategy and the tools targeted to address those problems, and target your compliance assurance activities to those facilities with the most problems. Some factors you might consider include: facility size and location, facility operations, compliance history, exposure to compliance information, sophistication, and the potential impacted population. For example, after developing a baseline of auto recycling facilities in Orange County, Florida, state personnel divided the facilities into three groups: the “big guys” (well-organized, more sophisticated facilities who would respond well to compliance assistance); the “better half” (small facilities with little or no automation who were trying to comply); and the “bad guys” (small facilities with little or no automation who were least likely to respond to compliance assistance). Based on this classification, Florida personnel tailored their compliance assurance activities to the different types of facilities.

Another useful tool in targeting your compliance assurance program is GIS software, which allows you to map the location of auto recycling facilities and identify those located in potentially sensitive receptor areas (e.g., near water bodies or in environmental justice areas). For example, Vermont had concerns with hydrocarbons in water, so they used GIS software to identify auto recycling facilities located near water bodies.

### Measure Success

Measuring the success of your program is important to manage your program, justify program resources, prioritize program activities (including knowing when to “move on”), and report to the public the success of your programs. In defining the problem and establishing the baseline, you should identify the goals of your program and the measures you will use to evaluate the effectiveness of that program. Doing this up front will allow you to measure your success. You can measure the outputs (e.g., the number of inspections) or outcomes (e.g., change in compliance, reduction of pollutant releases). While outputs are useful measures, measuring outcomes provides the best information on the impact of your programs.

After developing a baseline, you can measure the environmental performance at auto recyclers after implementing your compliance assurance program to evaluate if your program has been successful. This typically requires follow-up with some or all of the facilities participating in the compliance assurance program to evaluate changes in environmental performance. For example, you may look at the number of facilities implementing storm water best management practices

before and after your compliance assurance. See *EPA’s Guide for Measuring Compliance Assistance Outcomes* (available at [www.epa.gov/oeca/results](http://www.epa.gov/oeca/results)) for a detailed discussion on measuring the success of compliance assistance programs.

### How Do I Develop a Baseline?

You can use several approaches to develop a baseline. The approaches presented here are: 1) visit all of the auto recycling facilities, 2) visit a sample of auto recycling facilities, 3) use a mailed survey, and 4) use other data sources to obtain information. The approach selected depends on the resources available and the size of the area you are evaluating (e.g., state versus county). For example, you may be able to visit all the auto recycling facilities within a particular county, but you would likely only be able to visit a sample of auto recycling facilities at a state level.



We recommend developing a baseline evaluation tool, such as a site visit checklist or a mailed survey. When developing such a tool keep in mind that you should use this same tool as a follow-up to measure the success of your compliance assurance program. For example, if you develop a site visit checklist and visit a sample of the auto recyclers, you should use the same checklist and visit another sample of the recyclers after you complete your compliance assurance program to consistently measure any impacts.



## Visit All Auto Recycling Facilities

The most comprehensive baseline is developed by visiting all the auto recycling facilities. You can then classify the facilities by environmental performance (e.g., Florida's Orange County efforts), target your compliance assurance accordingly, and measure the success of your program by following up with the auto recycling facilities after implementing your compliance assurance program. However, this is also the most resource-intensive approach.

## Visit A Sample Of Auto Recycling Facilities

Visiting a sample of auto recycling facilities can provide valid information at a lower cost than visiting all the auto recycling facilities. The key is to visit a statistically valid sample to ensure that the facilities you visit represent the entire population. It is only by visiting a statistical sample of facilities that you will be able to generalize the results to your entire population. You can create a statistical sample as long as you know the names and addresses of your entire population. If you want to distinguish between subsets of your population, determining the type of sample that you select is important. For example, if you want to compare compliance performance of large auto recycling facilities to small ones, you will need to know that PRIOR to developing your sample plan. *The Guide for Measuring Compliance Assistance Outcomes* discusses various approaches for sampling, some of which are very simple.

Equally important is knowing whether you plan to revisit a sample of facilities to

determine improvements from the baseline. In this case, you will need to develop your original sample plan based on a two-sample test. Most likely, you will be determining the proportion of auto recyclers that are in compliance with your checklist.

You can also visit a nonstatistical sample of facilities who you feel are representative of your target population. While this approach may be less resource-intensive than a statistical sample, your results are limited to the population sampled.

## Use a Mailed Survey

EPA has often used mailed surveys to evaluate the environmental performance of a sector. However, mailed surveys can be challenging when evaluating compliance because survey recipients may not know enough about what you are asking to accurately assess their performance. In developing a mailed survey, you need to carefully consider how you are asking questions to ensure that you are not leading the respondent. In addition, the small "mom and pop" facilities and hobbyists are unlikely to respond to a survey, which may bias your results towards the larger, environmentally aware auto recycling facilities. EPA has typically seen response rates ranging from 15 to 50 percent for voluntary mailed surveys. If you choose to use a mailed survey, consult the *Guide for Measuring Compliance Assistance Outcomes* for tips on designing and implementing successful surveys. Overall, surveys are likely to be much less resource-intensive than on-site visits, and, if conducted properly, can provide informative results.

## Use Other Data Sources To Obtain Information

We previously presented approaches to identifying auto recycling facilities. You can use some of the information gathered in that effort to help develop a baseline. For example, Florida personnel used information from aerial flyovers to classify auto recycling facilities. Another approach is to separate those facilities that are members in a trade association (typically the larger, more sophisticated facilities) from those that aren't in a trade association. While this information is not as detailed with respect to environmental compliance, it can still provide a reference point for clas-

sifying auto recycling facilities. You also could use this information in conjunction with anecdotal information on compliance problems at auto recycling facilities to identify specific environmental problems. Finally, you can use this information as well as information from visits to a subset of facilities to help define the problem, target compliance assurance activities, and measure the success of your program.



## Developing a Compliance Assurance Program

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### The Basics of a Compliance Assurance Program

After developing a baseline of current environmental performance, the next step is to design a compliance assurance program to address the issues identified at baseline. The key to developing this program is to design the program to address the specific issues that you identified at baseline - there is no "one size fits all" program. This section presents some of the tools that EPA Regions and states have used for compliance assurance programs at auto recycling facilities, along with some of the advantages and disadvantages of each tool. You should select the appropriate combination of tools based on the problems you identify during your baseline study. A few key points to remember:

- **Coordinate with local government agencies.** A successful compliance assurance program is implemented at the local level, even if it's a state-wide program. Therefore, it is critical to coordinate with local government agencies. You likely will be relying on these agencies to conduct some part of your program (e.g., coordinating workshops, conducting compliance inspections, or supporting enforcement cases). Working with these agencies up front and getting their buy-in to the program will help make your program a success. Of particular interest may be Departments of Motor Vehicles, which in many states register auto recyclers. Some states are partnering with DMV inspectors to provide compliance assistance.

- **Couple compliance assistance with enforcement and incentives.** Many states have found that an enforcement “stick” is needed alongside the compliance assistance “carrot” to assure compliance. There inevitably is a subset of facilities that does not respond



to compliance assistance without a threat of enforcement. Other facilities may be motivated by incentives programs such as on-site compliance assistance or assurance of penalty mitigation for voluntary disclosures.

- **Work with local trade associations.** Local trade associations are an excellent resource in terms of gathering information and disseminating information. You can work with trade associations to help identify auto recycling facilities and issues at auto recycling facilities, and to provide compliance assistance information to the auto recycling facilities. Cooperating with the local trade association also adds credibility to your efforts in the eyes of the auto recycling facilities.
- **Publicize information on the “good” and the “bad” performers.** Both states and the trade associations have suggested publicizing the work of the “good” performers so that other auto recycling facilities can learn what is considered “good” performance and how other facilities achieved it. By the same token, you could publicize the results of enforcement activities against “bad” performers to show the

costs and ramifications of poor performance.

## **A General Approach for a Compliance Assurance Program for the Auto Recycling Sector**

Several states have already implemented compliance assurance programs for auto recycling facilities. While each program has unique characteristics, the programs follow these general steps:

- Identify the compliance issues by conducting compliance assistance visits, inspections, or investigations.
- Identify the best tools and sequence of those tools.
- Develop and implement compliance assistance outreach programs (e.g., workshops, fact sheets). Some states have also developed self-certification programs. Section 5 discusses these types of programs.
- Conduct follow-up inspections, compliance assistance visits, or surveys to measure the effectiveness of the compliance assistance programs and the validity of the self-certification.
- For those facilities that aren’t in compliance, either provide additional compliance assistance or initiate enforcement activities.
- Publicize the enforcement activities to encourage the use of compliance assistance.
- Filter the lessons learned from violations into your compliance assistance materials.

- Evaluate the results of your program in terms of addressing the compliance issues.

Remember, your program should be tailored to address the specific needs you identify at baseline. That way, you can achieve the best results for your resources. While there will likely be commonalities among various state programs, each one has its own nuances. You can draw on existing tools, but first ensure that they address your needs.

## What Compliance Assurance Tools Are Appropriate?

EPA and states have developed a wide variety of tools applicable to auto recycling facilities. The compliance resources listed at the end of this guide identify tools developed to date for auto recycling facilities by states, EPA Regions, and other groups. Before you develop auto recycling compliance assurance tools, we recommend that you look at existing tools so you don't "reinvent the wheel." The order in which you develop and implement these tools depends on the specific issues identified while developing your baseline. For example, if you find that one subset of auto recycling facilities in your area has excellent compliance, while another subset has poor compliance, you may want to set up a series of workshops where the first group discusses with the second group how they comply.

It is important to understand the strengths and weaknesses of each compliance assurance tool and apply the appropriate tools (or combinations thereof) to your specific situation. The types of tools are discussed below.

**Compliance inspections and visits** to potentially regulated facilities can be used to provide technical assistance, compliance assistance, and pollution prevention assistance. Compliance inspections and visits may also serve as a baseline from which programs can measure the facility's progress. These inspections and visits are possibly the best way to convey compliance information to a specific facility, and are also an excellent means of disseminating other types of compliance assistance tools such as printed materials, videos, and audit checklists. However, compliance inspections and visits can be very resource-intensive. In addition, facilities may not be receptive to a compliance inspection if they feel that you may carry out enforcement activities as a result of the inspection.

**Compliance Assistance Workshops** include training sessions and seminars for the regulated community. Workshops are a good way to provide assistance to a wide audience. While workshops don't provide the "one-on-one" interaction that inspections provide, workshops reach a wider audience for the resources expended. As with inspections, workshops are a useful way to provide technical assistance, compliance assistance, and pollution prevention assistance. Several states have developed workshops (see the case studies starting on page 15); we recommend that you consult with these states as a starting point for your workshop. Workshops are also an excellent way to disseminate other compliance assistance tools such as printed materials, videos, and audit checklists.

**Printed materials** (e.g., guidance documents, posters, and fact sheets) and videos can reach a wide audience, but don't have





the personal interaction provided by inspections and workshops. Targeted printed materials or videos can be very effective if you know the specific issues. For example, if you know that auto recycling facilities in your area are having difficulty managing mercury wastes, you can send them a fact sheet on mercury handling and disposal. These materials are also an excellent way to convey detailed technical information related to compliance assistance or pollution prevention. Printed materials and videos are very useful when used in conjunction with workshops and inspections. However, mass mailing of these tools runs the risk of having the recipients either dispose of or file the materials without looking at them. States have developed a wide range of printed materials and videos (see the compedium referenced on page 22 for more information); before developing your own tools, we recommend that you consult with other states.

**Audit checklists** are simple, easy-to-use checklists to remind auto recycling facilities of their environmental requirements. These are particularly effective after providing in-person guidance during workshops or inspections. As with printed materials, audit checklists can reach a wide audience using relatively few resources. Again, consult with states that have developed audit checklists before developing your checklist.

**Internet materials** can effectively reach a very wide audience (even outside of your targeted area). These materials can range from electronic copies of the printed materials discussed above to sector-specific compliance assistance computer programs. Two such tools developed by EPA include the Compliance Assistance Clearinghouse ([www.epa.gov/clearinghouse](http://www.epa.gov/clearinghouse)) and the Auto

Recyclers Compliance Assistance Center ([www.ECARcenter.org](http://www.ECARcenter.org)). Many small auto recycling facilities do not have computer access, so Internet materials may be of limited use for some facilities in this sector. However, Internet materials are useful for disseminating information to compliance assistance providers.

**Compliance incentives**, such as EPA's audit policy and small business audit policy, can encourage self-disclosure and compliance. These tools are available for use by states. For details, see [www.epa.gov/compliance/incentives/index.html](http://www.epa.gov/compliance/incentives/index.html).

**Enforcement action** is usually one of the last steps in a compliance assurance program for this type of universe. Because of the large number of auto recycling facilities, including small "mom and pop" organizations, many states have been reluctant to initiate extensive enforcement programs before implementing compliance assistance programs. However, there are usually situations where, even after extensive compliance assistance, a subset of the population requires some sort of enforcement action. Enforcement actions can either spur compliance or encourage a facility to leave the business. When initiating a compliance assurance program, you should clearly state that there will be follow-up enforcement activities for noncompliers, and delineate the potential financial ramifications (i.e., fines) of noncompliance. Note that in cases where you observe conditions that pose imminent or substantial endangerment to either human health or the environment, you should take immediate enforcement action.

One tool that has worked well for several states is to take a few enforcement

actions, and work with the trade associations and other groups to publicize the results of these enforcement actions to the rest of the population. Seeing the potential ramifications of noncompliance can motivate facilities towards compliance.

## **How Do I Measure the Success of My Program?**

As mentioned earlier, measuring the success of your overall program helps you focus your resources by identifying which components of your program are the most effective, and helps you document the impacts of your program. In general, you should follow up with auto recyclers to measure how their understanding of the requirements and environmental performance have improved as a result of your program. If you have a multistage program that is implemented over several years (e.g., a series of outreach programs followed by enforcement), you should consider interim follow-up to measure incremental impacts, identify which components of your program were the most effective, and identify how the set of tools impacted the end result.

How you evaluate the effectiveness of specific compliance assistance activities depends on the type of compliance assistance you implemented. If you conducted compliance assistance visits to all the auto recyclers in your area, you can revis-

it some or all of them to document environmental issues and the improvement resulting from compliance assistance. Or you can conduct a telephone survey of some or all the recyclers. If you conducted compliance assistance workshops, you can administer pre- and post-tests. If you have conducted an enforcement action, you can identify the changes resulting from that action. Table 1 lists several follow-up methods that EPA recommends.

To measure the success of your overall program, you should use the same tool that you used to evaluate the baseline. For example, if you developed a site visit checklist for baseline visits, you should use that same checklist for follow-up visits. This allows a simple “before and after” analysis to evaluate the impacts of your program.

You can set up a measurement program to provide anecdotal results, or you can follow statistical sampling procedures to yield statistically valid results. If you are trying to gather general information as to whether you are meeting your goals, anecdotal information is probably sufficient. If you are trying to scale results to a larger population and make policy decisions, you may need statistically valid results. In either case, see *EPA’s Guide for Measuring Compliance Assistance Outcomes*.

**Table 1  
Follow-up Measurement Methods\***

Compliance Assistance Activity	Recommended Follow-up Method
Site visits	<ol style="list-style-type: none"> <li>1. Revisits</li> <li>2. Telephone survey</li> </ol>
Workshops/Training	<ol style="list-style-type: none"> <li>1. Pre-/Post-tests</li> <li>2a. Telephone survey if &lt;50</li> <li>2b. Mail survey if &gt;50</li> </ol>
Compliance Guides <i>Note: EPA does not recommend using mail-back cards as a follow-up, since the response rate from these cards has been very poor (approximately two percent).</i>	If distributed at a workshop: <ol style="list-style-type: none"> <li>1. Telephone survey if &lt;50</li> <li>2. Mail survey is &gt; 50</li> </ol>
	If mailed: Mail survey
	If posted to the Internet: Count downloads

\*Whenever possible, we recommend working with local trade associations to both deliver the compliance assistance and conduct the follow-up activities.

## Self-Certification Programs

Several states have developed self-certification programs that allow facilities to certify that they comply with environmental regulations. This approach can save money by reducing compliance inspection costs. Instead of targeting the full universe of auto recycling facilities for inspection, you can target the nonparticipants along with a small subset of participants.

Some nongovernmental agencies are developing programs that provide incentives for recyclers to participate in a self-certification program. For example, Sustainable Conservation in California works with charities to establish reduced rates for vehicles purchased by auto recyclers who certify they comply with environmental regulations.

In general, self-certification programs include the following:

- Outreach materials such as printed materials and videos.
- A self-certification checklist or test that the facilities complete to certify compliance. States have administered these checklists or tests in different ways. For example, some states have recyclers complete mailed checklists, and require that photos be included to document and verify compliance. Other states have administered tests after workshops.
- The option for a facility to either certify compliance or to submit a plan as to how and when they will achieve

compliance. Some states (e.g., New Hampshire) also have given facilities the option of developing a plan to get out of the business if they will not be able to achieve compliance.

- A procedure to verify a facility's self-certification.
- A procedure to identify facilities that do not participate in the self-certification program. These facilities are the target population for compliance and enforcement inspections.

Two concerns have been raised regarding self-certification programs. The first concern is how to verify the certification. Some states have conducted random inspections of a subset of participants in the program. Another approach is to have a third-party certification program, where an independent party certifies for the facility. For example, Wisconsin has implemented a self-certification program for storm water compliance that requires facilities to pay \$1,000 annually; this cov-

ers the cost of an independent auditor to certify facility compliance. One concern with this approach is that facilities may be resistant to incurring this cost. Regardless of your approach, you should consider how you will verify the certification, and ensure that the participants are aware of this at the beginning of the program.

The second concern is the statutory authority to enforce certification programs. In many cases, states don't have the authority to enforce against the certification. While they can enforce against the specific regulations covered by the certification (e.g., storm water regulations, hazardous waste regulations), they may not be able to enforce the actual certification itself. Massachusetts recently adopted a regulation that requires businesses to conform to the self-certification requirements in the Massachusetts Environmental Results Program (ERP). This regulation provides the authority to enforce self-certification programs. States without such authority may have difficulty enforcing self-certification programs.

## Case Studies of Successful Compliance Assurance Programs

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### Case Study of Florida's Program

Between 1996 and 2001, Florida officials conducted hazardous waste inspections at 37 auto recyclers in Orange County, Florida. These inspections indicated that only eight percent of the auto recyclers complied with rules governing the handling of hazardous wastes. These recyclers had the potential to contaminate the ground water used by many people for

drinking water. Therefore, Orange County and the State of Florida initiated actions to identify auto recyclers, develop a baseline of environmental performance, and implement a compliance assistance pilot program for auto recyclers in Orange County.

### Identifying Auto Recyclers

Personnel in various Florida Department of Environmental Protection (DEP) programs independently conducted the 37 compli-



ance inspections at auto recyclers in Orange County. As a result, it was difficult to draw a comprehensive picture of the environmental problems at auto recyclers. To address this

issue, Orange County formed a problem-solving team - the Scrappers - to investigate auto recyclers. They undertook a series of coordinated inspections to define the problems at the 21 auto recyclers in East Orange County. Each yard received an initial compliance inspection and a follow-up visit. Using the information collected during the compliance inspections, the Scrappers divided the auto recyclers into three groups: the "big guys," the "better guys," and the "bad guys."

Twenty percent of the auto recyclers in East Orange County are "big guys." They are well-organized and corporately owned operations with computerized inventory and more than five employees. They also belong to the Florida Automobile Dismantlers' and Recyclers Association (FADRA), responded well to compliance assistance, and corrected all violations after the initial compliance inspection.

The "better guys" comprise 47 percent of the auto recyclers in East Orange County. They are small facilities with little to no automation and less than five employees. They corrected some of the violations after the initial compliance inspection, and are in the process of correcting other violations.

Thirty-three percent of the auto recyclers in East Orange County are classified

as "bad guys." All had less than five employees with no computerized inventory. They were issued over half of the violations from the initial compliance inspections of all of the auto salvage yards in East Orange County. They were the least likely to respond to compliance assistance, correcting only 22 percent of the worst violations.

Because identifying auto recyclers and their environmental concerns is labor-intensive, the Scrappers looked for different ways to locate auto recyclers in West Orange County and identify potential areas of concern. Using aerial photographs taken by an amateur pilots' organization, they identified auto recyclers and determined up front which environmental programs needed to inspect those recyclers. The amateur pilots donated their time and their aircraft, and the DEP paid the cost of the fuel for the aircraft.

## Developing a Baseline of Performance

Using the results of their 21 compliance inspections in East Orange County, the Scrappers developed the following summary baseline data for auto recyclers:

- Sixty-six percent could not document freon recovery;
- Sixty percent could not document antifreeze recovery;
- Sixty percent could not document battery disposal;
- Fifty-three percent could not document proper disposal of used oil filters;
- Fifty-three percent could not document proper disposal of waste tires;

- Thirty percent did not determine whether suspect liquids are hazardous waste;
- Forty-three percent had releases of used oil; and
- Twenty-five percent stored waste within 200 feet of a wetland.

State officials used this information to tailor assistance that offered the best opportunity for these facilities to comply with environmental requirements.

### Green Yards Compliance Assistance Pilot Program

The DEP's Waste Management Division used the baseline information gathered by the Scrappers to justify a request for state funds to address environmental issues at auto recyclers. Funds received by the Waste Management Division were given to DEP's Central District to design and implement a self-certification pilot program for auto recyclers in Orange County. The Central District worked closely with FADRA in designing the pilot program.

As part of the pilot program, auto recycler operators will be able to attend a workshop where they will receive a do-it-yourself compliance workbook and training in National Pollutant Discharge

Elimination System (NPDES) general permit requirements, including Best Management Practices (BMP). Operators who attend the workshop will receive follow-up



on-site compliance assistance from FADRA. Those who submit and pass the self-tests in the workbooks will be self-certified as "Green Yards." DEP will conduct random inspections at the "Green Yards" to verify compliance with environmental requirements.

Operators who do not submit the self-test will not be certified as "Green Yards." They will continue to be subject to compliance inspections and enforcement actions, if appropriate, by several local and state agencies, and by EPA. If the self-certification pilot program is successful, the Green Yards program may become a state-wide program.

### For Additional Information

**For additional information, contact:**

Lu Burson, Department of Environmental Protection Central District (phone number: 407-893-3323; e-mail address: lu.burson@dep.state.fl.us).

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### Case Study of New York's Program

The New York State Department of Environmental Conservation (DEC) has operated two auto recycler initiatives. In late 1997-98, the DEC conducted outreach on pollution prevention and compliance assistance by developing an auto recy-

clers compliance checklist and by holding nine workshops.

In 2001-2002, the Department began the second auto recyclers initiative by developing and implementing a coordinated outreach and enforcement initiative. As a part of this program, the Commissioner of the Department of Environmental Conservation





(DEC) announced the initiative, and a task force was formed. Neither of these elements were a part of the 1997 initiative.

The 2002 initiative comprises the following components: facility identification and listing, education and outreach, inspection and enforcement, and regulatory enhancement.

### Facility Identification and Listing

Facilities were first identified through the database maintained by the Department of Motor Vehicles. The DEC then added known but unregistered facilities to the same data set and have been continually refining and updating the data. To date, there are 1,215 facilities in the DEC database.

A letter was then sent to over 1,200 registered facilities located or doing business in New York State explaining the initiative and the reasons such an initiative was necessary.

### Education and Outreach

To aid the facilities with environmental compliance, part of the initiative included education and outreach to help owners learn which laws and regulations apply to the automobile recycling industry. The DEC conducted workshops throughout the Spring of 2002 in nine locations around the state. Based on feedback from those workshops a guidance document was published to address questions such as how hazardous materials must be handled and what disposal options are available for

waste tires generated at the site. The manual covers over 20 typical wastes.

### Inspection and Enforcement

Inspection checklists helped inspectors and law enforcement staff conduct inspections during the Summer and Fall of 2002. Over 40 facilities were inspected during this time.

The initiative also reached municipal officials by including them in some of the inspections and inviting them to the workshops. The New York State Department of State has also produced a model ordinance that can be adopted by the local governments to help them deal with facilities at a local level.

### Regulatory Enhancement

DEC is exploring the development of a registration and self-certification program for this sector similar to the Environmental Results Programs that have been implemented in several states.

### Future Plans

Currently, the DEC is assessing the first year of the initiative to determine what future actions are appropriate. Follow up workshops are being planned and current enforcement cases will be pursued. DEC staff will also continue an active inspection program.

### For Additional Information

**For additional information contact:**

Dennis Lucia by e-mail at [djlucia@gw.dec.state.ny.us](mailto:djlucia@gw.dec.state.ny.us) or Ian Beilby by e-mail at [iabelby@gw.dec.state.ny.us](mailto:iabelby@gw.dec.state.ny.us)

## Case Study of Ohio's Program

Between 2001 and 2002 the Small Business Assistance Office (SBAO) of the Ohio EPA used a multifaceted approach to assist auto recyclers in complying with applicable environmental regulations. This project was initiated in response to complaint investigations related to fluid management and stormwater contamination. The investigations revealed compliance issues involving fluid recovery, leak management, poor waste and parts storage practices, and stormwater runoff. In response, the SBAO launched a program which included identification of auto recyclers, development of compliance assistance tools, and outreach to local trade associations.

### Identification of the Auto Recycler Universe

The SBAO used both internal sources (such as permit databases and waste notifier databases) as well as licensing information obtained from the Bureau of Motor Vehicles to identify all auto recyclers in the state of Ohio. Of the 771 identified, 70 were in the targeted area of Central Ohio.

### Development of Compliance Assistance Tools

Once the target population was identified, SBAO developed a multimedia compliance guidebook for auto recyclers. This tool included an overview of regulatory requirements, self-audit checklists, and a list of vendors and recyclers. SBAO then distributed the Guide to all 771 Ohio auto recyclers as well as other state agencies, health departments, and municipal offices.

### Auto Recycler Outreach

SBAO also met with the state auto recycler trade association to discuss the applicable environmental regulations as well as available resources and possible areas of collaboration. During this meeting the trade association provided SBAO with the following insight:

- Many auto recyclers, especially small yards, are still not aware of the regulations.
- Although trade association members should be more aware of the regulations, membership comprises only 20% of the industry.
- Even when the recycler is aware of the regulations, compliance is not always a business priority.
- Some recyclers feel that compliance information is difficult to obtain and understand.

The association also suggested a combined approach of outreach, inspections, and enforcement to initiate the necessary change in the industry. SBAO and the association worked together to develop a list of ways to most successfully reach the community of auto recyclers. This list included:

- Developing a compliance presentation addressing fluid/waste management and stormwater for the annual trade association meeting;
- Submitting compliance articles to the trade magazine;
- Performing site visits at recycling yards to learn more about the industry;
- Developing compliance assistance workshops; and
- Developing an educational video.





## Resulting Additional Compliance Assistance Tools

### Compliance Workshops

SBAO has developed compliance workshops that focus generally on hazardous waste and used oil management. These workshops are 2-3 hours in length and are currently conducted for all small businesses. Although these workshops are not currently focused specifically on auto recyclers, SBAO hopes to eventually tailor them to that audience.

### Educational Video

SBAO has also developed an educational video outlining Best Management Practices (BMPs) for auto recyclers. The video, which took six months to develop, was produced through the cooperation of four "model" salvage yards. The project was funded through a grant of \$11,700. The video discusses proper fluid and waste management practices, options for recycling, benefits of recycling, and low-cost, simple solutions for achieving compliance.

The video was shown at the Ohio Auto & Truck Recyclers Association annual meeting in February 2003. In addition, the SBAO intends to directly distribute the final video to all salvage yards in Ohio as well as to trade associations, public libraries, and other agencies. SBAO also has plans to air the video on a public access station.

### Auto Recyclers Industry Inspection Initiative

As a separate effort from that of SBAO, the Division of Hazardous Waste Management (DHWM) is planning to inspect the 70 auto recyclers in Central Ohio between July 2002 and July 2003. The initiative may later be expanded to

other district offices, eventually resulting in statewide participation.

The focus of these inspections will be on waste fluid management but the inspectors will also be trained in stormwater and tire management.

### Project Goal

DHWM is planning to perform these inspections annually, therefore they will use the first round of visits to determine an industry baseline, to provide technical assistance, and to distribute the SBAO compliance assistance guidebook. By performing routine inspections, DHWM hopes to get companies into the practice of proper fluid management and general environmental compliance. Although the main goal of this program is to provide compliance assistance, it is not designed to provide amnesty; violation letters and enforcement activities will be possible.

### Overall State Objective

It is the goal of the Ohio EPA to successfully reach and influence change within the auto recycling industry through the implementation of a variety of approaches ranging from sector specific compliance assistance tools (such as workshops, guidebooks, and videos) to one-on-one assistance through inspections or site visits. If this approach is successful, SBAO may use it as a template for other small business sectors in the future.

### For Additional Information

#### For additional information contact:

Laurie Stevenson, Ohio EPA Small Business Assistance Office at (614) 728-8576; or by e-mail at [laurie.stevenson@epa.state.oh.us](mailto:laurie.stevenson@epa.state.oh.us).

## COMPLIANCE RESOURCES

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### ■ **Environmental Compliance for Automotive Recyclers**

Environmental Compliance for Automotive Recyclers Web site ([www.ECARcenter.org](http://www.ECARcenter.org)) contains a state-by-state breakdown of the requirements that apply specifically to industry activities.

### ■ **The National Environmental Compliance Assistance Clearinghouse**

This Clearinghouse not only provides links to comprehensive compliance assistance materials, but also contains features that allow users to interact with EPA and each other. The Clearinghouse can be accessed at [www.epa.gov/clearinghouse](http://www.epa.gov/clearinghouse).

### ■ **Compendium of Compliance Assistance Tools for the Automotive Recycling Industry**

EPA and its partners have compiled a list of compliance assistance tools for the auto recycling industry. This information can be accessed at [www.epa.gov/compliance/resources/publications/assistance/sectors/autopub.html](http://www.epa.gov/compliance/resources/publications/assistance/sectors/autopub.html).

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